CLASSIFICATION RESTRICTED

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT [redacted] STAT

COUNTRY USSR

SUBJECT Scientific Research

DATE DISTR. 14 June 1948

NO. OF PAGES 2

PLACE ACQUIRED USSR

NO. OF ENCLS. (LISTED BELOW)

DATE OF INFORMATION 1946

SUPPLEMENT TO [redacted] STAT

THIS IS UNEVALUATED INFORMATION FOR THE RESEARCH USE OF TRAINED INTELLIGENCE ANALYSTS

SOURCE Documentary as indicated. (Information specifically requested.)

RECENTLY PUBLISHED RESEARCH OF THE LENINGRAD INSTITUTE OF LABOR HYGIENE AND INDUSTRIAL DISEASES, USSR

"Heat-Protecting Metal Garments," Z. A. Iashumova, Leningrad Inst Labor Hygiene and Indust Diseases, Ministry of Public Health RSFSR

"Gigiyena i Sanitariya" Vol 11, No 4, 1946, pp 15-19

Tests were made on garments of Al foil, tin, asbestos, aluminized cloth, sacking cloth, civilian cloth, and army coat cloth. Best protection from radiant heat was afforded by linen cloth covered with overlapping shields (30-50 sq mm) of tin plates.

"Absorption of Sulfur Dioxide in the Respiratory Passages," I. D. Gadaskina, Leningrad Inst Hygiene and Occupational Diseases

"Farmakol i Toksikol" Vol 9, No 1, 1946, pp 51-3

Total absorption of SO_2 in respiratory passages of sound rabbits breathing test air containing 0.55 to 16 mg SO_2/liter averaged 63% (range 46-81%); in the upper passages of tracheotomized rabbits, 42% (range 21-55%). On the basis of solubility and localized selective absorption, SO_2 closely resembles Cl. The experiments support the Henderson hypothesis of a relation between solubility and point of absorption. Conception of gas in respired aid is not in direct quantitative relation to absorption. This is particularly significant in view of the fact that the action of irritant gases follows the Haber rule.

- 1 -

CLASSIFICATION RESTRICTED

STATE	X	NAVY	X	NSRB		DISTRIBUTION	
ARMY	X	AIR	X	RDB	X		

RESTRICTED

STAT

"Detecting Hydrogen Sulfide in the Blood of Poisoned Animals," I. D. Gadaskina, Leningrad Ins of Hygiene and Occupational Diseases

"Farmakol i Toksikol" Vol 9, No 1, 1946, pp 47-51

Rabbits and cerebrectomized, tracheotomized cats have only traces of H_2S, or none, in the blood after 7-30 minutes of breathing air containing H_2S (up to one mg/liter). Lethal doses (1-2 mg/liter for 15-17 minutes or 3-3.5 mg/liter for 3-20 minutes) introduce readily detectable concentrations of H_2S into the blood. Animals then die in 2-10 minutes after the end of the exposure period. Oxidation of H_2S in the blood continues, though slowly, after death. Samples of cardiac blood taken immediately, 10 minutes, and 1 hour after death underwent slow oxidation in vitro, often with complete disappearance of H_2S within 2 hours. Detection of H_2S in blood has diagnostic and possible medicolegal significance in accidental and occupational poisoning.

- END -